SYPHILIS OF THE THORACIC ORGANS.

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THIS colored child, aged eleven years, makes the sixth that I have shown you in the last three months, who is suffering from acquired syphilis. On examination you notice, on the left labia majora, an indurated papular chancre. The parts are not swollen, and no marks of any violence exist. There is no precocious development, and you notice that the mons veneris is devoid of hair. There is a well marked bubo in the left groin, and well marked macular eruption over the abdomen. You will find on examination induration of the submaxillary, post-cervical, sub-lingual, post-auricular and epitrochlear glands. She has opaline mucous patches in her mouth, and she has alopecia, and she complains of nocturnal headache, and pains in her joints.

Before dismissing the patient, Dr. Arwine will take her aside, and perhaps, with his customary tact, can obtain a history of how the child acquired the disease. He has returned alone, and says that this child, who is only eleven years old, has for the past two years allowed boys of all ages to attempt the sexual act with her. Some, she said, were sixteen and twenty years old, and these disgusting scenes occurred two or three times a week. It is not my purpose at the present time to dilate on the frightful lack of morality that exists among certain classes at the National Capital.

The best informed know that our patients are the poorest of the poor, lacking in food and raiment, and fuel to keep them warm. Still they will struggle to pay five or ten cents for medicines, showing that it is a base libel on the really deserving poor, to state that they are not anxious to pay. We weep over the sufferings of the poor in our comfortable pews in a fashionable place of worship, as it exists in foreign capitals; while under the shadow of the dome of our own capitol, there exists more want and disease and immorality than Eugene Sue described in his "Mysteries and Miseries of Paris."

Before resuming the subject of syphilis of the internal organs, I can not refrain from quoting the following, which I have just read in the *Medical Record* of February 27, 1897: "A good story is told of a rich manufacturer of foot wear and a poor (*i. e.*, in the sense of not being rich) physician of a well-known European city. Mr. X. had a maxillary tumor, which, according to the *Journal de Médecine de Bruxelles*, a surgeon had agreed to remove for the

sum of 14,000 francs. All was in readiness, when an intimate friend urged him to defer the operation until he could consult the young man who was fast gaining a reputation. Mr. X. consented. An antisyphilitic course of energetic frictions and large doses of the iodides was entered upon, with such success that in a very short time the tumor had disappeared. In the meantime the young physician, thinking to patronize those who came to him, ordered at the establishment a handsome pair of shoes. On the first of the year the physician sent in his bill for 30 francs for the six office visits paid him. By return mail his bill came back, enclosed with one for 50 francs for the shoes. The question is, whether the patient would not have made the surgeon a present of the shoes if he had been cut 14,000 francs' worth."

We have called your attention to syphilis of the brain, and of the organs of sight and hearing, and of smelling, and of taste. Likewise we have taken up the buccal cavity and the pharynx and larynx. Now let us take up the lungs. Lammonier nearly a century ago described the existence of phthisis pulmonalis of a syphilitic character. Then followed a long series of years when syphilis was not recognized as attacking the internal organs, probably owing to the teachings of John Hunter and Sir Astley Cooper, who did not believe in any visceral complications of syphilis. Sir Astley and Edward Jenner were the pet students of Hunter, and naturally endorsed whatever the great physiologist taught. Sir Astley in his lectures on surgery taught "that some parts of the body are incapable of being acted upon by the venereal poison, such as the brain, the heart and the abdominal viscera." Indeed he writes: "This poison does not appear to be capable of exercising its destructive influence on the vital organs, or on those parts most essential to the welfare and continuance of life."

In 1826 Laennec and Vandral recognised and described syphilis of the lungs, identical in its symptoms to those of phthisis pulmonalis. Van der Kolk insisted that syphilitic subjects died, presenting "phthisical appearances, with ulceration of the lungs, situated most frequently in the middle lobe, but without tubercle." Ricord and Lanceraux and Alfred Fournier have, by pathological anatomy, proved that symptoms of phthisis are not only possible, but very frequently the same as those produced by syphilis.

Syphilitic Broncho-Pneumonia. — Drs. Balzer and Grandhomme have recently made several necropsies of syphilitic still-born infants, and the results of their examinations prove that syphilitic lesions, which are caused by microbes, like other inflammations, do not appear to preserve any specific character in their evolutions. With regard to the lungs, syphilitic pneumonia may be classed with broncho-pneumonia, in the same degree as secondary pneumonia in acute infectious diseases, such as measles, or in chronic affections, like tuberculosis. Syphilis in the fetus assumes the different forms of broncho-pneumonia and other lesions, according to its violence and the degree of its chronic stage. The authors classify these forms of broncho-pneumonia, including pulmonary congestion, and lesions which are not apparent on microscopic examination.

2. Broncho-pneumonia or agglomerated nuclei disposed in a vertical band at the posterior portion of the lungs. These forms correspond, with regard to lesions, to subacute forms of broncho-pneumonia of other infectious diseases, and invariably assume the following type.

3. Broncho-pneumonia, with white hepatization, without dilatation of the bronchi, corresponding to the hepatization of other forms of broncho-pneumonia. It may lead to fibro-caseous or gummy degeneration.

4. Broncho-pneumonia, accompanied by dilatation of the bronchi. It may be said that pulmonary syphilis is identical at different ages.

At a meeting of the Moscow Dermatological Society, Pospelow and Kontrim (*Monatshefte für praktische Dermatologie*, 1895) each reported two cases of

syphilitic pneumonia that yielded to treatment with mercurials. Hemoptysis occurred in three of the cases, and fever with sweating was present in two. The lesion was localized at the apices. In one of the cases, tubercle bacilli were found in the sputum, and the process was believed to be tuberculous. Treatment with mercurial inunctions and sulphur baths, with a residence in Egypt, was followed by general improvement and disappearance of fever, cough and expectoration. The patient had been well for three years at the time of the report. In this case it is believed that the tuberculous affection was implanted upon the syphilitic pneumonia, disappearing with the latter.

Syphilitic Pleurisy. — In the *Presse Médicale*, of the 20th ultimo, M. Chantemesse publishes a clinical lecture on the complication of constitutional syphilis. The subjects of the lecture were two men who presented the usual stigmata of syphilis in the eruptive stage. In both there were discovered the physical signs of pleurisy with effusion, and in one aspiration with a hypodermic syringe yielded a quantity of straw-colored serum. Both had râles, due probably to an eruption of roseola on the bronchial mucous membrane. M. Chantemesse had succeeded in collecting twelve similar observations of syphilitic pleurisy. Most of them were cases of dry pleurisy, but in either case the prognosis is favorable, resolution and absorption being the rule under specific treatment. M. Chantemesse treated his patients with intravenous injections of corrosive sublimate; he nevertheless does not recommend this method, but would prefer intramuscular injections of red oxide of mercury dissolved in sterilized olive oil. He says that he has never noticed any stomatitis during a treatment of several months, consisting of daily doses of four or eight milligrammes of the salt dissolved in one or two cubic centimeters of the oil. The specific character of the pleurisy is plain to M. Chantemesse from the following peculiarities: Its bilaterality, the small amount of effusion, its concomitance with the secondary eruption, its complete disappearance without leaving any traces, and its prompt cure by mercury. The lecturer is inclined to believe that the so-called secondary fever of syphilis may be in many instances explained by the existence of this kind of pleurisy, which in the presence of indubitable signs of lues venerea is not suspected or sought for. In one-half of the cases bronchitis is present as well, this complication being probably due to the outbreak of a syphilide on the bronchial mucous membrane.

Dr. Rendu, at a recent clinical lecture, presented an old woman who had for a long time been emaciated and cachectic, but without fever. The symptoms were ill-defined, some pain, stiffness of the limbs, without marked weakness or paresthesia, dyspnea on exertion, and for a short time a dry cough without expectoration. The respiratory and auscultatory phenomena were found normal, anteriorly, but behind there was dullness over the right apex, with roughened prolonged expiration. There was a loud, rough, systolic murmur, together with a softer and more superficial one, but no symptom of cardiac insufficiency. The arteries were apparently healthy, the liver normal in size, and there was no albuminuria. There was a diffuse and characteristic syphilitic melanodermia, and iritis of two years' standing, nocturnal bone pains and headache. Her only previous illness had been measles. It was pointed out that against tuberculosis was the long duration, the absence of expectoration, of râles, and of concomitant symptoms. Syphilis does not usually attack the apices, although cases of this occurrence are recorded. Syphilis and tuberculosis may occur in association, and tuberculosis may attack a lung previously syphilitic. From the absence of a history of acute pneumonia an indurating pneumonia could here be excluded. The attack of measles was not considered adequate cause. As there were no other etiological factors, the changes in the heart and lungs were probably syphilitic. Great improvement followed the exhibition of mercury and iodide of potassium.

In lecture No. VIII, I referred to patients of Abrahams and Brambilla and Fournier and Ross. These patients were undoubtedly far advanced in pulmonary tuberculosis, when they acquired syphilis. They were put upon energetic anti-syphilitic treatment, which cured not only the syphilis, but the tuberculosis. You will naturally ask if I do not think that the treatment destroyed the toxines of both syphilis and tuberculosis, and the same treatment is indicated for both diseases. I have put this same question to eminent throat and lung specialists, and have been informed that the treatment has been tried, and the effects were baneful, unless the patient had syphilis complicating the tuberculosis.

Syphilis of the Heart and Arteries.—Virchow describes syphilitic growths in the substance of the heart, and refers to those recorded by Ricord and Lebert. Ricord, in his Atlas, calls them "syphilitic muscular nodes in the substance of the heart." They were found in the substance of the ventricles, and consisted of firm, cheese-like masses. There was a history of chancres and ulcerated tubercles of the skin. Lebert reports that gummata were seen at a comparatively early stage of development in his case, and were found in the wall of the right ventricle. There were tubercles of the skin, of the subcutaneous tissue, genital organs and bones of the skull. In Virchow's case there were syphilitic gummata in the testicles.

In the Museum of the British Army, Medical Department at Netley, there are two preparations which show such gummata in the substance of the heart. "One occurred in the case of a soldier, twenty-four years of age, under treatment for venereal ulcers, of nine month's duration, in various parts of the body. He had lost his palate, and eventually sank from exhaustion, with symptoms of phthisis. Sections of the muscular substance of the heart showed several isolated deposits in its substance and beneath its serous covering, and isolated portions of the lungs were converted into a substance of the consistence of cheese."

A few months ago, I visited the United States Army Medical Museum, and Dr. D. S. Lamb showed me a pathological specimen of a heart in which a syphilitic gumma was imbedded in the wall of the left ventricle. This specimen was exhibited in Baltimore, at the Johns Hopkins University, and its nature verified by the pathologists there. For the clinical record, Dr. Lamb referred me to Health Officer W. C. Woodward, M. D., as the specimen was obtained from him when he was serving as coroner of the District. Dr. Woodward kindly sent me the following report: "The patient came under my observation after death. The history was vague. Colored, male, thirty-three years old, a native of Virginia; was found dying in bed about 5 o'clock one morning by his wife, who had been sleeping by his side. He had complained for some time of shortness of breath, and is said to have had night-sweats just previous to his death. There was, further, a history of continued ill health, not borne out by the condition of the body, attributed by his family to a hernia. There was no external evidence and no history of syphilis. Deceased was a huckster by occupation."

At a recent meeting of the Clinical Society of London (*British Medical Journal*), Dr. Duckworth reported the case of a strongly-built man, 35 years old, who, while walking in the street carrying his little boy, suddenly fell down and expired. Only a meager antecedent history was obtained, but there was evidence of old syphilitic disease on the tongue and on the glans penis. A small gumma was found in the left lung. The heart weighed twenty-two ounces, and was bound by firm adhesions to the pericardium, both at the apex and the base. The ventricles were hypertrophied and dilated; the valves were normal. In the wall of the left ventricle, above the apex, was a round depression, nearly an inch in diameter, and covered by long adhesions. This was due to a thinning of the wall, with much endocardial thickening. A large aneurismal pouch was found behind the

posterior cusp of the mitral valve. This appeared from without as a tumor growing from the base of the heart, and completely covering the left auricle. Its walls were half an inch thick, and the pericardium was closely adherent over it. On section the muscle was replaced by tough, fibrous tissue, with foci of gelatinous matter. The endocardium was greatly thickened and fibrous. Microscopic examination proved the formation to be gummatous in nature, with patches of caseation. The smaller vessels showed signs of endarteritis. These appearances were taken to indicate a recent gummatous growth at the base of the left ventricle, and a similar but older one near the apex of that cavity.

Investigation showed that in fourteen similar cases death occurred quite suddenly in eight. But one case in the whole number was in a woman. The mean age of all the patients was 32 years. Many of the cases seemed to have been devoid of urgent symptoms. In some there had been pericardial pain. The valves were not usually involved, and hence murmurs were not to be heard. The ventricles and their septa were the common sites of the growth. The tendency to fatal and sudden syncope was probably attributable in part to endarteritis affecting the coronary vessels, and possibly to the formation of embolisms in the branches of the coronary arteries, as a result of the dislodgment of fragments from the interior of aneurisms.

During a recent meeting of the Montreal Medico-Chirurgical Society, Dr. Finley presented the report of a case of syphilitic gummata of the heart and liver, and exhibited the pathological specimens showing the characteristic lesions.

At a late meeting of the Charité Aerzte of Berlin, Dr. Israel exhibited pathological specimens, and gave the following clinical history: During life the patient, aged 47, had presented the appearance of hepatic cirrhosis. The pulse, 136, was small and irregular at first, but improved under digitalis. A systolic murmur was heard in the left, second and third intercostal spaces, with an accentuated second sound. There was no clinical evidence of syphilis. Eight days after admission, there was a profuse and fatal hemorrhage from the stomach. The autopsy showed the heart to be hypertrophied, but only slightly dilated. No circulatory obstruction could be proved at the mitral orifice. Islets of fibrous tissue were present at the base of the papillary muscles, and the muscles themselves had undergone fibrous changes. Fine strands of fibrous tissue were seen in the slightly brown cardiac muscular tissue. The dilated left auricle presented peculiar appearances. The wall was rigid, with only the remains of a few yellowish-brown muscular fibers. The auricular appendix was greatly shrunken. Very irregular and easily detached excrescences were found in the inner wall of the auricle, and were especially marked well on the upper surface of the mitral valve segment. The gummatous formation in the heart muscle could only be due to syphilis. In the liver fibrous changes with the remains of gummata were found. There was induration of the uterus with chronic endometritis, also of syphilitic origin.

At the Berlin Medical Society, Dr. A. Fraenkel recently demonstrated a specimen of cardiac syphilis from a woman 36 years of age. When first seen last year she had aortic regurgitation and suffered from frequent headaches, which were occasionally associated with fainting attacks. The heart disease was supposed to be consequent on acute rheumatism. The husband was syphilitic and the woman herself had suffered from swellings on the head, which had ulcerated and left scars. She improved at first and left the hospital, but was readmitted this year with severe attacks of angina pectoris, in one of which she died. At the necropsy the left coronary artery was found quite permeable, but the orifice of the right coronary was completely obliterated by a process of arterio-sclerosis, which in excess of the patient's years and its proper position could only be determined by probing backward along the lumen of the artery.

There was a gummatous tumor, four and a half centimeters long, in the septum ventriculorum, and Fraenkel thinks this shows that the arterial changes were really of syphilitic nature. The arterio-sclerotic changes in the aorta reached down to the bifurcation. Fraenkel, moreover, remarks on the part played by syphilis in the etiology of aneurisms. Walsh thought that sixty per cent. of true aneurisms were due to syphilis ; others think still more. Fraenkel himself, during the last four years, has seen nineteen cases of aneurism of the thoracic aorta in which there were necropsies. Three cases were in women, sixteen in men. Of the nineteen patients, nine, that is forty-seven per cent., had had syphilis and these were all under fifty years of age. The case illustrates the relation of precocious arterio-sclerosis and syphilis. Mracek (*Medico-Chirurgisches Centralblatt*, 1895) refers to authors and states that, especially just preceding the roseola, in the second stage of syphilis, disturbance of the heart's action is not uncommon. He quotes Fournier to the effect that these troubles are functional and not dependent upon distinct lesions of the heart itself, and that they are distinctly transitory by nature, disappearing without leaving a trace, occurring much more frequently in women, and commonly associated with nervous disturbances. The later forms of heart syphilis appear, however, as distinct pathological changes. The symptoms of the affection are those of degeneration of the heart-muscle or interference with the valves, whatever is the cause of these pathological conditions.

Semnola holds as pathognomonic a persistent arhythmia, either existing alone or accompanied by tachycardia, respiratory troubles coming and going, resistance to all ordinary methods of treatment, and a history of syphilis. Through syphilitic stenosis of the coronary artery the symptoms of angina pectoris may be caused. Exceptionally, murmurs are developed. The course of syphilis of the heart is extremely slow and insidious. There is rarely any acute process, such as a softening of a gumma, but rather a slow transformation in the fibrous tissue. Judging from reported cases the prognosis is extremely bad, death coming suddenly and often in the midst of apparent perfect health. In sixty-three cases collected by the author (Semnola), this suddenly occurred in one-third of the number. Jullien and Mauriac stated that this end is observed in fifty per cent. of cases. Death comes after a heavy meal, or from drinking or straining. Often the patients are found dead in bed. Many cases perish in coma from heart failure.

Dr. Fisher, in the *Bristol Medico-Chirurgical Journal*, summarizes as follows the articles of Hektoen (*Journal of Pathology and Bacteriology*) and Jacquinet (*Gazette des Hôpitaux*, 1895): "Hektoen records a case of interstitial myocarditis due to syphilis in a child six weeks old and mentions that only eleven other cases have been recorded. In two of these eleven cases sudden death occurred when the children were considered to be in good health, a noteworthy fact, since it shows that this disease in the child may lead to the same abrupt arrest of heart action that frequently occurs in the adult when the heart is affected with syphilis.

"Jacquinet treats the subject of syphilis of the heart very fully. In connection with the above remark it may be mentioned that he quotes Mracek as saying that of fifty-eight cases of syphilis of the heart, twenty-one ended in sudden death. Others terminated in what French writers call acute asystole, where severe dyspnea ushers in the rapidly approaching end. Jacquinet quotes as an example the case of a prostitute who was dining in a beer-house with some of her companions, when she complained of pain in the stomach and abdomen. The pains increased and palpitation of the heart was added. She was removed to a hospital and died of "advanced asphyxia" after a few hours. The pain mentioned in this case suggests angina pectoris, which may sometimes be epigastric in situation. Jacquinet comments upon this point and refers to the possibility of cardiac pain being a symptom of syphilis of the heart. He

mentions that one of the recorded cases of sudden death occurred in a sailor, who died putting his hand to his heart as if he suffered pain in that region. Huchard is quoted as saying that of 110 cases of angina pectoris, in 32 a history of syphilis was obtained, and other observers are mentioned as having noticed severe cardiac pain in syphilitic subjects. This point is of some interest, since potassium iodide is recognized as of value in angina pectoris. The drug is not generally given, however, with the idea of combating syphilis, but of influencing the diseased condition of the coronary arteries that often exists. Yet a satisfactory result naturally suggests that this disease of the coronary arteries may be sometimes syphilitic, like aortitis of the intra-pericardial portion of the aorta with which cardiac pain is also often associated."

Dr. H. P. Loomis has reported fifteen cases of fibroid disease of the heart, three of which were considered beyond all doubt to have been of syphilitic origin. He has also seen four cases of gummata of the heart wall. Sudden death occurred in two of these cases. Notes are given of one. An apparently healthy man, aged 35, was found lying dead on his bedroom floor, with his hat in his hand, having obviously fallen immediately after entry. The two cases that did not terminate suddenly were in young prostitutes. One of these died with intense dyspnea and cyanosis ; the other was admitted to the Bellevue Hospital for lobar pneumonia, which ended fatally. Dr. Loomis emphasizes the point that the question of syphilis as a probable cause of heart disease should not be overlooked. He says : "When symptoms of cardiac failure occur during the prime of life, for which no cause can be ascertained, such as rheumatic history, valvular disease, arterial changes or kidney complications, especially in one with a syphilitic history, these should always suggest syphilis as the cause of the condition."

The same author published in the *American Journal of the Medical Sciences*, October, 1895, a very able and instructive article, giving in detail his services as curator for ten years for Bellevue Hospital, New York City. Fifteen hundred or more autopsies came under his personal observation, where certain pathological changes, "which were unquestionably of syphilitic origin, yet which failed in spite of marked symptoms to be diagnosed during life as manifestations of syphilis."

We propose in our next lecture to take up syphilis of the liver, spleen, kidneys, and conclude with a lecture on treatment.

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